



# **International Participation and Export Control**

**Mars Scout Program 2006  
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# ***NASA International Cooperation***

- Since 1958, NASA has concluded over 4000 agreements with over 100 nations and international organizations
- Cooperation now established with every region in the world
- Every Mission Directorate has international partnerships
- SMD presently has 43 missions on orbit, 24 of which have international contributions
- SMD is also participating in an additional 14 foreign-led operating science missions
- NASA follows foreign policy guidance from the Department of State
- The Mars Phoenix Scout Mission has international participation from Canada, Denmark, Germany, and Switzerland



# ***Why International Cooperation?***

***The National Aeronautics and Space Act of 1958 directs NASA to conduct its activities so as to contribute materially to:***

- “Cooperation by the United States with other nations and groups of nations in work done pursuant to the Act and in the peaceful application of the results thereof.”

## ***Benefits of international cooperation:***

- Combining of financial resources
- Access to foreign capabilities or geography
  - Adds unique capability and/or expertise
  - Increases mission flight opportunities
  - Enhances the scientific return
- Promote U.S. foreign policy interests





# ***Challenges to Cooperation***

## ***Management complexity***

- Decision-making is more complex
- Communications difficulties
- Differing specifications, standards and assumptions

## ***Technical and programmatic risk***

- Interdependence – the “critical path” issue
- Interfaces are difficult to manage at a distance; it's harder to monitor progress and get early warning of problems
- Multiple partners with multiple interfaces adds complexity

## ***Political risk***

- Budgetary and bureaucratic uncertainties
- Potential linkage to political activities or economic problems



# *Cooperation Guidelines*

- Cooperation must be mutually beneficial
- Must have scientific/technical merit and meet NASA programmatic objectives
- International partner funds its respective contribution – not eligible for NASA funding
- If AO proposal is from a foreign entity – or if U.S. AO proposal includes foreign participation - a strong letter of endorsement is needed from foreign partner's government agency or funding institution, indicating sufficient funds will be made available
- International partners are generally government agencies, but occasionally are universities
- Contributions need not be equivalent
- Clearly defined and distinct managerial and technical interfaces
- Protects against unwarranted technology transfer and takes into account industrial competitiveness
- Cooperation to be documented in a written, specific agreement



# ***Why Do We Need Agreements?***

- ***International Agreements are tools that:***
  - clarify responsibilities of the partners
  - confirm commitments and terms
  - document the quid pro quo (benefits) of the cooperation
  - protect investment and interests, such as:
    - technical data rights
    - intellectual property rights
    - allocation of risk -- cross-waiver of liability
  - allow import/export of technical data and goods
  - confirm arrangements to meet international obligations, such as UN Registration Convention, if necessary
- ***Note: International Agreements may take several weeks to months to put into place!***



# *Export Control Principles to Consider*

- Both the International Traffic in Arms Regulations (**ITAR**) and Export Administration Regulations (**EAR**) apply to NASA international activities
- Controls exist on assistance, training, technology (technical data and software), and hardware . . . in some cases, even if all of the information is in the public domain
- International Traffic in Arms Regulations (ITAR) (22 CFR 120-130) – promulgated under the Arms Export Control Act of 1976, 22 U.S.C. §§ 2778 et seq.; control the export of goods and technical data on the United States Munitions List (USML). USML items are mainly “military” in nature
- Export Administration Regulations (EAR) (15 CFR 732-774) – promulgated under the Export Administration Act of 1979, 50 U.S.C. app. §§ 2401 et seq.; control the export of goods and technical data on the Commerce Control List (CCL), typically referred to as “dual-use” items
- 10 CFR 810 – Department of Energy regulations
- **Entities List, Specially Designated Nationals List, Debarred Parties List, Denied Persons List, etc.**

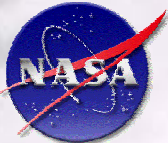


## ***Export Control Compliance: Part of the NASA Mission***

- “It is NASA policy to ensure that exports and transfers of commodities, technical data, or software to foreign persons are carried out in accordance with United States export control laws and regulations, and Administration and NASA policy.”
  - NPD 2190.1, Section 1.a. (May 24, 2001)
- “‘We want to maximize the benefits of our international efforts while ensuring that we comply with U.S. export control laws and regulations.’ This is the personal responsibility of each employee.”
  - NPR 2190.1, Section P.1. (April 10, 2003)

***Export control compliance is everyone's job at NASA***





# ***U.S. Nonproliferation & Export Control Policy***

The United States will continue to oppose missile programs of proliferation concern, and will exercise particular restraint in missile-related cooperation. We will continue to retain a strong presumption of denial against exports to any country of complete space launch vehicles or major components.

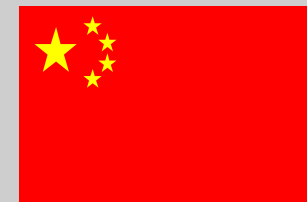
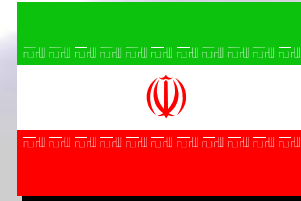
The United States **will not support the development or acquisition of space-launch vehicles** in countries outside the MTCR.

For MTCR member countries, **we will not encourage new space launch vehicle programs, which raise questions on both nonproliferation and economic viability grounds.** The United States will, however, consider exports of MTCR-controlled items to MTCR member countries for peaceful space launch programs on a case-by-case basis . . .



## *Other Statutory Considerations*

- **P.L. 106-178, P.L. 109-112 – Iran & Syria Non-Proliferation Act**
  - The Act restricts extraordinary payments to certain Russian entities in connection with human space flight activities, including the International Space Station
- **P.L. 106-391 – NASA Authorization Act of 2000**
  - Section 126(b) requires NASA certification to Congress regarding activities with PRC entities involving spacecraft, spacecraft systems, launch systems, or scientific or technical information. Other laws also restrict activities with the PRC.





# *U.S. Space Transportation Policy*

- **Strongly** encourages the use of U.S.-manufactured launch vehicles for U.S. Government payloads, and
- Subjects the use of foreign launch vehicles to significant governmental review & coordination requirements



# *Conclusions*

- NASA has traditionally sought international cooperation for a variety of reasons
- International Participation in the NASA Mars Exploration Program already exists and will continue to grow
- NASA's history -- and future -- is to reach out broadly and cooperate internationally
- International collaboration at NASA is evolving and addressing challenges





# Questions?

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